SEQUENCE LISTING

<110>   Commissariat à l'Energie Atomique
         Centre National de la Recherche Scientifique
         GONDRY, Muriel
         GENET, Roger
         LAUTRU, Sylvie
         PERNODET, Jean-Luc

<120>   Polynucleotides and polypeptides coded by said polynucleotides
         involved in the synthesis of diketopiperazine derivatives

<130>   CGA263/83FR

<140>   US/10/518,019
<141>   2004-12-15

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<170>   PatentIn version 3.3

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        35                  40                  45

Ala Val Arg Asn Tyr Ala Lys Glu Pro Val Asp Asp Ala Leu Ile Glu
    50                  55                  60

Gln Leu Leu Glu Ala Met Leu Ala Ala Pro Thr Ala Ser Asn Arg Gln
65                  70                  75                  80

Ala Trp Ser Phe Met Val Val Arg Arg Pro Ala Ala Val Arg Arg Leu
                85                  90                  95

Arg Ala Phe Ser Pro Gly Val Leu Gly Thr Pro Ala Phe Phe Val Val
            100                 105                 110

Ala Cys Val Asp Arg Ser Leu Thr Asp Asn Leu Ser Pro Lys Leu Ser
        115                 120                 125

Gln Lys Ile Tyr Asp Thr Ser Lys Leu Cys Val Ala Met Ala Val Glu
    130                 135                 140
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Asn Leu Leu Leu Ala Ala His Ala Ala Gly Leu Gly Gly Cys Pro Val
145             150             155             160

Gly Ser Phe Arg Ser Asp Ile Val Thr Ser Met Leu Gly Ile Pro Glu
            165             170             175

His Ile Glu Pro Met Leu Val Val Pro Ile Gly Arg Pro Ala Thr Ala
            180             185             190

Leu Val Pro Ser Gln Arg Arg Ala Lys Asn Glu Val Val Asn Tyr Glu
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Ser Trp Gly Asn Arg Ala Ala Ala Pro Thr Ala
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<213>   Streptomyces noursei

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            20              25              30

Pro Ala Asp Tyr Gly Ile Tyr Arg Cys Thr Asp Gly Ala Arg Arg Ala
            35              40              45

Leu Gln Leu Leu Asp Glu His Gly Gly Ser Thr Ala Arg Leu Thr Ala
    50              55              60

Val Arg Glu Arg Leu Asp Glu Val Met Phe Ala Pro Met Gly Glu Asp
65              70              75              80

Arg Asp Met Gly Ala Ile Leu Asp Asp Leu Cys Arg Gln Met Ala Asp
            85              90              95

Ala Leu Pro Glu Ile Glu Thr Pro
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Leu Leu Ser Ser Gly Arg Gly Leu Leu Glu Glu Pro Ala Asp Tyr Gly
            20              25              30

Ile Tyr Arg Cys Thr Asp Gly Ala Arg Arg Ala Leu Gln Leu Leu Asp
            35              40              45
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Glu His Gly Gly Ser Thr Ala Arg Leu Thr Ala Val Arg Glu Arg Leu
    50              55              60

Asp Glu Val Met Phe Ala Pro Met Gly Glu Asp Arg Asp Met Gly Ala
65              70              75              80

Ile Leu Asp Asp Leu Cys Arg Gln Met Ala Asp Ala Leu Pro Glu Ile
                85              90              95

Glu Thr Pro
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            20              25              30

Leu Ile Gly Ile Ser Ala Gly Asn Ser Tyr Phe Ser Gln Lys Asn Thr
            35              40              45

Val Met Leu Leu Gln Trp Ala Gly Gln Arg Phe Glu Arg Thr Asp Val
    50              55              60

Val Tyr Val Asp Thr His Ile Asp Glu Met Leu Ile Ala Asp Gly Arg
65              70              75              80

Ser Ala Gln Glu Ala Glu Arg Ser Val Lys Arg Thr Leu Lys Asp Leu
            85              90              95

Arg Arg Arg Leu Arg Arg Ser Leu Glu Ser Val Gly Asp His Ala Glu
            100             105             110

Arg Phe Arg Val Arg Ser Leu Ser Glu Leu Gln Glu Thr Pro Glu Tyr
    115             120             125

Arg Ala Val Arg Glu Arg Thr Asp Arg Ala Phe Glu Glu Asp Ala Glu
    130             135             140

Phe Ala Thr Ala Cys Glu Asp Met Val Arg Ala Val Val Met Asn Arg
145             150             155             160

Pro Gly Asp Gly Val Gly Ile Ser Ala Glu His Leu Arg Ala Gly Leu
            165             170             175

Asn Tyr Val Leu Ala Glu Ala Pro Leu Phe Ala Asp Ser Pro Gly Val
            180             185             190

Phe Ser Val Pro Ser Ser Val Leu Cys Tyr His Ile Asp Thr Pro Ile
    195             200             205

Thr Ala Phe Leu Ser Arg Arg Glu Thr Gly Phe Arg Ala Ala Glu Gly
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Gly Pro Val Met Thr Gln Ala Ala Thr Val Thr Ala Thr Thr Ser Gln
            35              40              45

Gly Arg Ala Leu Leu Arg Ser Leu Thr Pro Leu Phe Val Asp Ala Ala
            50              55              60

Ile Pro Leu Gly Ser Tyr Phe Leu Leu Ala Glu Gly Phe Gly Met Ser
65              70              75              80

Thr Val Ala Ala Leu Ala Trp Ser Ser Val Val Pro Ala Leu Arg Thr
            85              90              95

Ile Trp Gly Leu Val Arg Glu Arg Thr Val Asn Gly Leu Ala Leu Leu
            100             105             110

Ile Leu Val Val Asn Val Val Gly Leu Ala Thr Ser Thr Leu Thr Gly
            115             120             125

Asp Ala Arg Leu Met Met Ala Lys Asp Ser Gly Val Ser Ser Val Val
            130             135             140

Gly Ile Ala Ile Leu Leu Ser Val Arg Gly Arg Arg Pro Leu Met Thr
145             150             155             160

Ala Gly Leu Arg Pro Trp Val Thr Lys Gly Ser Pro Glu Gly Asn Ala
            165             170             175

Ala Trp Asp Arg Leu Trp Ala Arg Ser Ala Arg Phe Arg Gln Leu Glu
            180             185             190

Arg Arg Phe Ser Thr Val Trp Gly Ser Ala Leu Leu Ile Glu Cys Val
            195             200             205

Val Lys Val Val Gly Ala Tyr Val Leu Pro Val His Thr Met Val Trp
            210             215             220

Leu Gly Thr Val Leu Thr Val Val Ala Ile Leu Leu Ala Met Val Val
225             230             235             240

Ala Gly Gly Gly Ser Ala Glu Pro Met Glu Arg Met Val Lys Ala Glu
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